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EXAMINER	
SANTOS, PATRICK J D	

ART UNIT	PAPER NUMBER
2161	

DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/677,476	RIPLEY ET AL.	
	Examiner	Art Unit	
	Patrick J Santos	2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 June 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,594,673 issued to Smith et al. (hereafter Smith '673) in view of U.S. Patent No. 6,618,727 issued to Wheeler et al. (hereafter Wheeler '727).

Claim 1:

Regarding Claim 1, Smith '673 discloses: a computer-implemented visualization model of similarity relationships between documents (Smith '673: Abstract) comprising:

- performing a search in a database (Smith '673: col. 8, lns. 54-57);
- creating a unique visualization model nodes corresponding to the at least one reference document and the at least one target document (Smith '673: col. 8, lns. 64-67; col. 9, lns. 24-40);
- assigning properties to the unique visualization model nodes including form item, link count, group ID, hidden count, locked, caption, color, hierarchical level, selected and ID (Smith '673: col. 8, lns. 9-10);
- creating unique visualization model edges corresponding to the similarity relationships between the at least one reference document and the at least one target document (Smith '673: col. 8, lns. 64-67; col. 9, lns. 24-40);

- assigning properties to the unique visualization model edges including from node, from node ID, to node, to node ID, query list, caption color, visible selected and ID (Smith '673: col. 8, lns. 9-10);
- displaying the unique visualization model nodes and the unique visualization model edges on a graphical user interface (Smith '673: col. 8, lns. 64-67; col. 9, lns. 24-40); and
- indicating a degree of similarity between the displayed unique visualization model nodes by the displayed unique visualization model edges (Smith '673: col. 9, lns. 24-27).

Wheeler '727 discloses a similarity search engine (Wheeler '727: Abstract). Specifically, Wheeler '727 discloses:

- performing a similarity search based on at least one reference attribute of at least one reference document to find at least one target document with at least one target attribute having a similarity relationship to the at least one reference attribute (Wheeler '727: col. 2, ln. 61 to col. 3, ln. 10; col. 9, lns. 4-23);

It would have been obvious for a person having ordinary skill in the art, to substitute the similarity search function of Wheeler '727 for the generic search function of Smith '673. The motivation to accomplish said substitution is suggested by Wheeler '727 which discloses that similarity searching allows the generation of query results in which the data sources are incomplete, inaccurate, or otherwise contains errors as are typically found in extremely large data sets (Wheeler '727: col. 1, lns. 42-54).

Claims 2-3, 17, and 22:

Regarding Claims 2-3, 17, and 22, Smith '673 and Wheeler '727 in combination disclose all the limitations of Claim 1 (supra). Further note that Smith '673 and Wheeler '727 additionally disclose:

- (Claim 2) wherein the at least one target document that is similarity searched reside in a plurality of databases (Wheeler '727: col. 1, lns. 55-65) and (Smith '673: col. 5, lns. 33-42). Note that the "interaction media" of Smith '673 includes data from multiple sites reads on the documents residing in a plurality of databases.
- (Claim 3) wherein the similarity search returns a result set of the at least one reference document, the at least one target document, and similarity relationships between the at least one reference document and the at least one target document that are used by the visualization model to create the unique visualization model nodes corresponding to the documents and the unique visualization model edges corresponding to the similarity relationships between the documents (Smith '673: col. 9, lns. 24-40).
- (Claim 17) wherein the visual representation is three dimensional (Smith '673: Fig. 11).
- (Claim 22) wherein the visualization model is selected from the group consisting of a two dimensional link chart visualization, a three dimensional visualization, a model explorer visualization, a cross database visualization, and a data landscape visualization (Smith '673: Figs. 2-7).

Claim 4:

Regarding Claim 4, Smith '673 discloses: a computer-implemented interactive visualization model of similarity relationships between documents comprising:

- using a similarity search (Smith '673: Abstract);

- creating visualization model nodes corresponding to the reference document and each target document (Smith '673: col. 8, lns. 64-67; col. 9, lns. 24-40);
- performing a lookup on a unique nodes list for determining if the created visualization model nodes already exists, adding the created visualization model nodes to the unique nodes list if the created visualization model nodes are not on the unique nodes list, and designating the visualization model nodes on the unique nodes list as unique visualization model nodes (Smith '673: col. 8, lns. 8-18);
- creating visualization model edges corresponding to the similarity relationships between the reference document and each target document (Smith '673: col. 8, lns. 64-67; col. 9, lns. 24-40);
- performing a lookup on a unique edges list for determining if the created visualization model edges already exists adding the created visualization model edges to the unique edges list if the created visualization model edges are not on the unique edges list and designating the visualization model edges on the unique edges list as unique visualization model edges (Smith '673: col. 8, lns. 8-18); and
- displaying the unique visualization model nodes corresponding to the reference documents and each target document and the unique visualization model edges corresponding to the similarity relationships on a graphical user interface (Smith '673: col. 8, lns. 64-67; col. 9, lns. 24-40); and
- indicating a degree of similarity between the displayed unique visualization model nodes by the displayed unique visualization model edges (Smith '673: col. 9, lns. 24-27).

However, Smith '673 does not explicitly disclose a similarity search.

Wheeler '727 discloses a similarity search engine (Wheeler '727: Abstract). Specifically, Wheeler '727 discloses:

- using a similarity search performed on reference attributes of a reference document which results in a set of 0 to n target documents with target attributes having similarity relationships with the reference attributes (Wheeler '727: .col. 2, ln. 61 to col. 3, ln. 10; col. 9, lns. 4-23).

It would have been obvious for a person having ordinary skill in the art, to substitute the similarity search function of Wheeler '727 for the generic search function of Smith '673. The motivation to accomplish said substitution is on the same basis as Claim 1 (supra).

Claims 5-6, 20, and 23:

Regarding Claim 5-6, 20, and 23, Smith '673 and Wheeler '727 in combination disclose all the limitations of Claim 4. Further note that Smith '673 and Wheeler '727 additionally disclose:

- (Claim 5) further comprising allowing a user using the graphical user interface to initiate the similarity search and select attributes of the reference document to be used in the similarity search (Wheeler '727: col. 9, lns. 4-23).
- (Claim 6) further comprising allowing a user using the graphical user interface to choose any attributes of the reference document to be used in the similarity search (Wheeler '727: col. 9, lns. 4-23);
- (Claim 20) A computer-readable medium containing instructions for a computer-implemented interactive visualization model of similarity relationships between

documents according to the steps of claim 4 (Smith '673: Abstract; col. 8, lns. 64-67; col. 9, lns. 24-40; col. 8, lns. 8-18; col. 9, lns. 24-27 and Wheeler '727: Abstract).

- (Claim 23) wherein the visualization model is selected from the group consisting of a two dimensional link chart visualization, a three dimensional visualization, a model explorer visualization, a cross database visualization, and a data landscape visualization (Smith '673: Figs. 2-7).

Claim 7:

Regarding Claim 7, Smith '673 and Wheeler '727 disclose all the limitations of Claim 6 (supra). Further note that Smith '673 and Wheeler '727 disclose: further comprising using attributes of a target document as a source for a new search (Wheeler '727: col. 7, lns. 58-63). Note that using the result of a previous query reads on using the attributes of a target document as a source for a new similarity search.

Claim 8:

Regarding Claim 8, Smith '673 discloses: a computer-implemented visualization model of similarities between documents comprising:

- displaying a reference hierarchical object (Smith '673: col. 8, lns. 64-67; col. 9, lns. 24-40);
- allowing a user to initiate a search (Smith '673: col. 8, lns. 54-57);
- visually representing the a unique visualization model reference model node corresponding to the reference hierarchical object and a unique visualization model target node corresponding to the at least one target hierarchical object model node that meet a similarity search criteria (Smith '673: col. 8, lns. 64-67; col. 9, lns. 24-40);

- visually representing a unique visualization model edge corresponding to a similarity relationship between the reference hierarchical object and each target hierarchical object (Smith '673: col. 8, lns. 64-67; col. 9, lns. 24-40);
- displaying the visual representations of the unique visualization model nodes and the unique visualization model edge on a graphical user interface (Smith '673: col. 8, lns. 64-67; col. 9, lns. 24-40); and
- indicating a degree of similarity between the displayed unique visualization model nodes by the displayed unique visualization model edges (Smith '673: col. 9, lns. 24-27).

However, Smith '673 does not explicitly disclose a similarity search.

Wheeler '727 discloses a similarity search engine (Wheeler '727: Abstract). Specifically, Wheeler '727 discloses:

- allowing a user to initiate a similarity search, based on at least one attribute of the reference hierarchical object, to find at least one target hierarchical object (Wheeler '727: col. 2, ln. 61 to col. 3, ln. 10; col. 9, lns. 4-23).

It would have been obvious for a person having ordinary skill in the art, to substitute the similarity search function of Wheeler '727 for the generic search function of Smith '673. The motivation to accomplish said substitution is on the same basis as Claim 1 (supra).

Claims 9-12, 15, and 24:

Regarding Claims 9-12, 15, and 24, Smith '673 and Wheeler '727 in combination disclose all the limitations of Claim 8 (supra). Further note that Smith '673 and Wheeler '727 in combination disclose:

- (Claim 9) wherein the unique visualization model node comprises:

- a reference to the hierarchical object the model node represents (Smith '673: col. 4, ln. 47 to col. 5, ln. 12);
- a reference to at least one attribute of the hierarchical object used in the similarity search to determine if a unique visualization model edge exists (Smith '673: col. 4, ln. 47 to col. 5, ln. 12); and
- visual properties of the hierarchical document the unique visualization model node represents (Smith '673: col. 9, lns. 24-52).

- (Claim 10) further comprising storing the visual representation of the unique visualization reference model node, each unique visualization target model node, and each unique visualization model edge in computer memory or on disk (Smith '673: col. 3, lns. 51-63).
- (Claim 11) wherein the unique visualization model edge comprises:
  - an identifier of the unique visualization reference model node from which the visual representation of the unique visualization model edge will extend and an identifier of the at least one unique visualization target model node to which the visual representation of the unique visualization model edge will extend (Smith '673: col. 4, ln. 47 to col. 5, ln. 12; col. 9, lns. 24-52); and
  - a list of the similarity search attributes used in the similarity search (Smith '673: col. 4, ln. 47 to col. 5, ln. 12; col. 9, lns. 24-52).
- (Claim 12) further comprising user chosen attributes to be used in the similarity search (Smith '673: col. 7, ln. 66 to col. 8, ln. 18).

- (Claim 15) wherein each unique visualization model edge indicates a degree of similarity between the reference hierarchical object and the target hierarchical object and is displayed as a line connecting unique visualization model nodes, said model nodes being depicted as geometric shapes on the graphical user interface (Smith '673: col. 8, lns. 64-67; col. 9, lns. 24-40).
- (Claim 24) wherein the visualization model is selected from the group consisting of a two dimensional link chart visualization, a three dimensional visualization, a model explorer visualization, a cross database visualization, and a data landscape visualization (Smith '673: Figs. 2-7).

Claim 16:

Regarding Claims 16, Smith '673 and Wheeler '727 in combination disclose all the limitations of Claim 15 (supra). Further note that Smith '673 and Wheeler '727 in combination disclose: wherein the length of the line connecting the unique visualization model nodes varies as a function of the degree of similarity between the reference document and the target document referenced by the unique visualization model nodes (Smith '673: col. 9, lns. 24-27).

Claim 13:

Regarding Claim 13, Smith '673 discloses: a computer-implemented method of visualizing similarity relationships between documents (Smith '673: Abstract) comprising:

- performing a search (Smith '673: col. 8, lns. 64-67; col. 9, lns. 24-40);
- converting each hierarchical document to a unique visualization model node that visually represents each hierarchical document to be displayed on a graphical user interface (Smith '673: col. 8, ns. 64-67; col. 9, lns. 24-40);

- using the similarity search results, creating a unique visualization model edge that visually represents the similarities between the reference hierarchical document and each hierarchical document in the result set to be displayed on a graphical user interface (Smith '673: col. 8, lns. 64-67; col. 9, lns. 24-40); and
- indicating a degree of similarity between the displayed unique visualization model nodes by the displayed unique visualization model edges (Smith '673: col. 9, lns. 24-27).

However, Smith '673 does not explicitly disclose using a reference hierarchical document and does not explicitly disclose a similarity search.

Wheeler '727 discloses a similarity search engine (Wheeler '727: Abstract). Specifically, Wheeler '727 discloses:

- using a reference hierarchical document (Wheeler '727: col. 2, ln. 61 to col. 3, ln. 10; col. 3, lns. 46-65); and
- performing a similarity search based on user selected attributes of the reference hierarchical document and determining a result set of target documents comprising 0 to n hierarchical documents (Wheeler '727: col. 2, ln. 61 to col. 3, ln. 10; col. 9, lns. 4-23);

It would have been obvious for a person having ordinary skill in the art, to substitute the similarity search function of Wheeler '727 for the generic search function of Smith '673. The motivation to accomplish said substitution is on the same basis as Claim 1 (supra).

Claims 14, 21, and 25:

Regarding Claims 14, 21, and 25, Smith '673 and Wheeler '727 in combination disclose all the limitations of Claim 13 (supra). Further note that Smith '673 and Wheeler '727 in combination disclose:

- (Claim 14) further comprising displaying the unique visualization model edge; and the unique visualization model node on a graphical user interface (Smith '673: col. 8, lns. 64-67; col. 9, lns. 24-40).
- (Claim 21) a computer-readable medium containing instructions for a computer-implemented method of visualizing relationships between documents according to the steps of claim 13 (Smith '673: Abstract; col. 8, lns. 64-67; col. 9, lns. 24-40; col. 8, lns. 8-18; col. 9, lns. 24-27 and Wheeler '727: Abstract).
- (Claim 25) wherein the visualization model is selected from the group consisting of a two dimensional link chart visualization, a three dimensional visualization, a model explorer visualization, a cross database visualization, and a data landscape visualization (Smith '673: Figs. 2-7).

Claim 18:

Regarding Claim 18, Smith '673 discloses a computer-readable medium containing instructions for a visualization model of similarity relationships between documents (Smith '673: Abstract) comprising:

- creating unique visualization model nodes corresponding to the at least one reference document and the at least one target document (Smith '673: col. 8, lns. 64-67; col. 9, lns. 24-40);
- assigning properties to the unique visualization model nodes including form item, link count, group ID. hidden count, locked, caption, color, hierarchical level, selected and ID (Smith '673: col. 8, lns. 9-10);

- creating unique visualization model edges corresponding to the similarity relationships between the at least one reference document and the at least one target document (Smith '673: col. 8, lns. 64-67; col. 9, lns. 24-40);
- assigning properties to the unique visualization model edges including from node, from node ID, to node, to node ID, query list, caption, color, visible, selected and ID (Smith '673: col. 8, lns. 9-10);
- displaying the unique visualization model nodes and the unique visualization model edges on a graphical user interface (Smith '673: col. 8, lns. 64-67; col. 9, lns. 24-40); and
- indicating a degree of similarity between the displayed unique visualization model nodes by the displayed unique visualization model edges (Smith '673: col. 9, lns. 24-27).

However, Smith '673 does not explicitly disclose a similarity search.

Wheeler '727 discloses a similarity search engine (Wheeler '727: Abstract). Specifically, Wheeler '727 discloses:

- performing a similarity search based on at least one attribute of a reference document to find at least one target document with at least one target attribute having a similarity relationship to the at least one reference document (Wheeler '727: col. 2, ln. 61 to col. 3, ln. 10; col. 9, lns. 4-23);

It would have been obvious for a person having ordinary skill in the art, to substitute the similarity search function of Wheeler '727 for the generic search function of Smith '673. The motivation to accomplish said substitution is on the same basis as Claim 1 (supra).

Claim 19:

Regarding Claim 19, Smith '673 discloses: a computer-readable medium containing instructions for a visualization model of similarities between documents comprising:

- displaying a reference hierarchical object (Smith '673: col. 8, lns. 64-67; col. 9, lns. 24-40);
- allowing a user to initiate a search (Smith '673: col. 8, lns. 54-57);
- visually representing the a unique visualization model reference node corresponding to the reference hierarchical object and a unique visualization model target node corresponding to the at least one target hierarchical object that meet a similarity search criteria (Smith '673: col. 8, lns. 64-67; col. 9, lns. 24-40);
- visually representing a unique visualization model edge corresponding the a similarity relationship between the reference hierarchical object and each target hierarchical object (Smith '673: col. 8, lns. 64-67; col. 9, lns. 24-40);
- displaying the visual representations of the unique visualization model nodes and the unique visualization model edge on a graphical user interface (Smith '673: col. 8, lns. 64-67; col. 9, lns. 24-40); and
- indicating a degree of similarity between the displayed unique visualization model nodes by the displayed unique visualization model edges (Smith '673: col. 9, lns. 24-27).

However, Smith '673 does not explicitly disclose a similarity search.

Wheeler '727 discloses a similarity search engine (Wheeler '727: Abstract). Specifically, Wheeler '727 discloses:

- allowing a user to initiate a similarity search, based on at least one attribute of the reference hierarchical object, to find at least one target hierarchical object (Wheeler '727: col. 2, ln. 61 to col. 3, ln. 10; col. 9, lns. 4-23);

It would have been obvious for a person having ordinary skill in the art, to substitute the similarity search function of Wheeler '727 for the generic search function of Smith '673. The motivation to accomplish said substitution is on the same basis as Claim 1 (supra).

Response to Arguments

3. Applicant's arguments filed June 22, 2004 have been fully considered but they are not persuasive.

Applicant's repeats similar arguments for the various claims. Examiner has identified the following repeating arguments as follows:

A. Applicant argues that database filters are not similarity searches.

Applicant misrepresents the Smith '673 reference. Smith reference discloses queries (Smith '673: col. 8, ln, 55), which reads on a database search.

Further note, in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Specifically, the combination of Wheeler '727 discloses a similarity search, thus in combination with Smith '673 provides a similarity search.

B. Applicant argues that unique visualization nodes and edges are not taught.

Applicant is in error. Smith '673, Fig. 4 shows visualization nodes and edges. Regarding their uniqueness, Smith '673 discloses a generic means of displaying related data. If the data is unique, then the nodes are unique. Note example in Smith '673, col. 7, lns. 40-41, in which postings are unique. Thus, when combined with Wheeler '727, which contains unique data, the Smith '673 nodes are unique.

Applicant makes much of the exemplary use of the Smith '673 as directed to email postings. However, Examiner points out that Smith '673 is a generic GUI teaching. A person having ordinary skill in the art, is a programmer familiar with GUIs, including the techniques of Smith '673, and when faced with the requirement of representing document data, such as Wheeler '727, is motivated to combine.

Applicant further argues that much rework would be necessary to combine Wheeler '727 and Smith '673. Examiner points out that Applicant overstates the rework since Smith '673 discloses a wide range of databases that can be used for the back end, including document databases such as that of Wheeler '727 (Smith '673: col. 7, ln. 47 to col. 8, ln. 31). Thus the rework necessary would be no more than that disclosed by Smith '673 in changing the backend from a Usenet group to a graphical virtual world.

Finally, Examiner reiterates that one cannot show non-obviousness by attacking references individually (supra).

C. Applicant argues that specific properties (form item, etc.) are not taught.

Examiner argues that it would have been obvious to a person having ordinary skill in the art to substitute the properties of Smith '673 (Smith '673: col. 7, ln. 66 to col. 8, ln. 10) with other properties (form item, etc.). Smith '673 is a generic GUI, that represents the fields exposed by the back end database. If the back end database exposes properties such as form item, then Smith '673 displays such properties.

D. Applicant argues that indicating a degree of similarity is not taught.

Examiner points out that Applicant is attempting to attack references individually rather than in combination. Examiner reiterates that one cannot show non-obviousness by attacking references individually (supra).

Smith '673 discloses displaying nodes where the distances are proportional to criteria (Smith '673: col. 9, lns. 24-27). When applied to Wheeler '727, the criteria is the degree of similarity. Therefore, Smith '673 in combination with Wheeler '727 discloses that a degree of similarity is taught.

E. Applicant argues that a three dimensional representation is not taught.

Examiner draws attention to the Smith '673 figures, which include Fig. 11. Note that the items are displayed not only with length and width, but also depth (note items on top of each other).

F. Applicant argues that a determination of uniqueness is not taught.

Examiner directs Applicant to Examiner response to argument B.

G. Applicant argues that referencing a hierarchical object is not taught.

Examiner points out that Applicant is attempting to attack references individually rather than in combination. Examiner reiterates that one cannot show non-obviousness by attacking references individually (supra).

Applicant admits that Wheeler '727 discloses "displaying a reference hierarchical object" (Amendment: p. 24, lns. 16-17). Thus Smith '673 as applied to Wheeler '727 reads on referencing a hierarchical object. Examiner also reiterates response to argument B that changing the backend does not cause any more rework than disclosed in Smith '673.

H. Applicant argues that storage is not disclosed.

Applicant is mistaken. Applicant admits that Smith '673 discloses memory devices (Amendment: p. 29, last line). Applicant claims that a recitation of memory devices does not claim that the invention runs in memory. Applicant is directed to Smith '673:

col. 3, lns. 33-35, which clearly states that the invention runs in the memory, including the recited memory devices.

I. Applicant argues that geometric shapes are not disclosed.

Examiner draws Applicant's attention to Fig. 4 where each node is represented as a rectangle. A rectangle reads on a geometric shape.

J. Applicant argues that length of line varies as a function of similarity is not disclosed.

Examiner directs Applicant to Examiner response to argument D.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick J Santos whose telephone number is 571-272-4028. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 571-272-4023. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patrick J.D. Santos
December 20, 2004

SAFET METJAHIC
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100